

CELEX™ 310HF

Polycarbonate Resin

Overview

CELEX 310HF is an ignition resistant and glass fiber reinforced polycarbonate resin. It is formulated without the use of brominated and chlorinated flame retardant. CELEX 310HF is designed with superior processability for use in LCD frame and instrument panel.

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.24 g/cm ³	1.24 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	19 g/10 min	19 g/10 min	ASTM D1238
Molding Shrinkage - Flow	3.0E-3 to 5.0E-3 in/in	0.30 to 0.50 %	ASTM D955
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength			ASTM D638
Yield, 0.126 in (3.20 mm), Injection Molded	10000 psi	69.0 MPa	
Tensile Elongation			ASTM D638
Break, 0.126 in (3.20 mm), Injection Molded	5.0 %	5.0 %	
Flexural Modulus			ASTM D790
0.126 in (3.20 mm), Injection Molded	491000 psi	3390 MPa	
Flexural Strength			ASTM D790
0.126 in (3.20 mm), Injection Molded	12800 psi	88.0 MPa	
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact			ASTM D256
73°F (23°C), 0.126 in (3.20 mm), Injection Molded	1.5 ft-lb/in	80 J/m	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
264 psi (1.8 MPa), Unannealed, 0.126 in (3.20 mm), Injection Molded	248 °F	120 °C	
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating ¹ (0.06 in (1.6 mm))	V-0	V-0	UL 94
Injection	Nominal Value (English)	Nominal Value (SI)	
Drying Temperature	248 °F	120 °C	
Drying Time	3.0 to 4.0 hr	3.0 to 4.0 hr	
Rear Temperature	500 to 509 °F	260 to 265 °C	
Middle Temperature	509 to 518 °F	265 to 270 °C	
Front Temperature	518 to 527 °F	270 to 275 °C	
Nozzle Temperature	527 to 536 °F	275 to 280 °C	
Mold Temperature	176 to 248 °F	80 to 120 °C	

Notes

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

¹ This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.



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